FLIGHT SUMMARY REPORT

Flight Number: 99-122

Calendar/Julian Date: 8 September 1999 • 251

Sensor Package: Wild Heerbrugg RC-10

Area(s) Covered: Southern Central Valley, California

Investigator(s): Posley, State of California,
Farmland Mapping Program

Aircraft #: 806

SENSOR DATA

Accession #: 05382

Sensor ID #: 023

Sensor Type: RC-10

Focal Length: 6”
153.21mm

Film Type: Aerochrome IR
SO-134

Filtration: Wratten 12+2.2AV

Spectral Band: 510-900nm

f Stop: 8

Shutter Speed: 1/275

# of Frames: 204

% Overlap: 60

Quality: Good

Remarks: Add 8 seconds
for correct UTC

Airborne Science and Applications Program

The Airborne Science Program at NASA's Dryden Flight Research Center, Edwards, California, operates two ER-2 high altitude aircraft in support of NASA earth science research. The ER-2s are used as readily deployable high altitude sensor platforms to collect remote sensing and in situ data on earth resources, celestial phenomena, atmospheric dynamics, and oceanic processes. Additionally, these aircraft are used for electronic sensor research and development and satellite investigative support.

The ER-2s are flown from various deployment sites in support of scientific research sponsored by NASA and other federal, state, university, and industry investigators. Data are collected from deployment sites in Kansas, Texas, Virginia, Florida, and Alaska. Cooperative international scientific projects have deployed the aircraft to sites in Great Britain, Australia, Chile, and Norway.

Photographic and digital imaging sensors are flown aboard the ER-2s in support of research objectives defined by the sponsoring investigators. High resolution mapping cameras and digital multispectral imaging sensors are utilized in a variety of configurations in the ER-2s' four pressurized experiment compartments. The following provides a description of the digital multispectral sensor(s) and camera(s) used for data collection during this flight.

Camera Systems

Various camera systems and films are used for photographic data collection. Film types include high definition color infrared, natural color, and black and white emulsions. Available photographic systems are as follows:

- Wild-Heerbrugg RC-10 metric mapping camera
  - 9 x 9 inch film format
  - 6 inch focal length lens provides area coverage of 16 x 16 nautical miles from 65,000 feet
  - 12 inch focal length lens provides area coverage of 8 x 8 nautical miles from 65,000 feet

- Hycon HR-732 large scale mapping camera
  - 9 x 18 inch film format
  - 24 inch focal length lens provides area coverage of 4 x 8 nautical miles from 65,000 feet

- IRIS II Panoramic camera
  - 4.5 x 34.7 inch film format
  - 24 inch focal length lens
  - 90 degree field of view provides area coverage of 2 x 21.4 nautical miles from 65,000 feet

Data Availability

The U.S. Geological Survey's EROS Data Center at Sioux Falls, South Dakota serves as the archive and product distribution facility for Airborne Science Program aircraft acquired photographic and digital imagery. The photographic archive consists of photography acquired by the program from 1971 to April 1996. For information regarding photography and digital data (including areas of coverage, products, and product costs) contact EROS Data Center, Customer Services, Sioux Falls, South Dakota 57198 (Telephone: 605-594-6151).

As of April 1996 the EROS Data Center no longer receives an archive copy of newly acquired Airborne Science Program photography. Original photography is archived with the Airborne Sensor Facility at Ames Research Center. A user copy of the photography is provided to the principal investigators for each flight. Principal investigators are cited on the first page of their respective flight summary reports. For information regarding photography acquired from April 1996 to the present contact the Airborne Sensor Facility as follows:

Flight Documentation and Data Archive Searches

The following is the web site for flight documentation as published by the Airborne Sensor Facility at NASA Ames Research Center: http://asapdata.arc.nasa.gov/er-2fsr.html

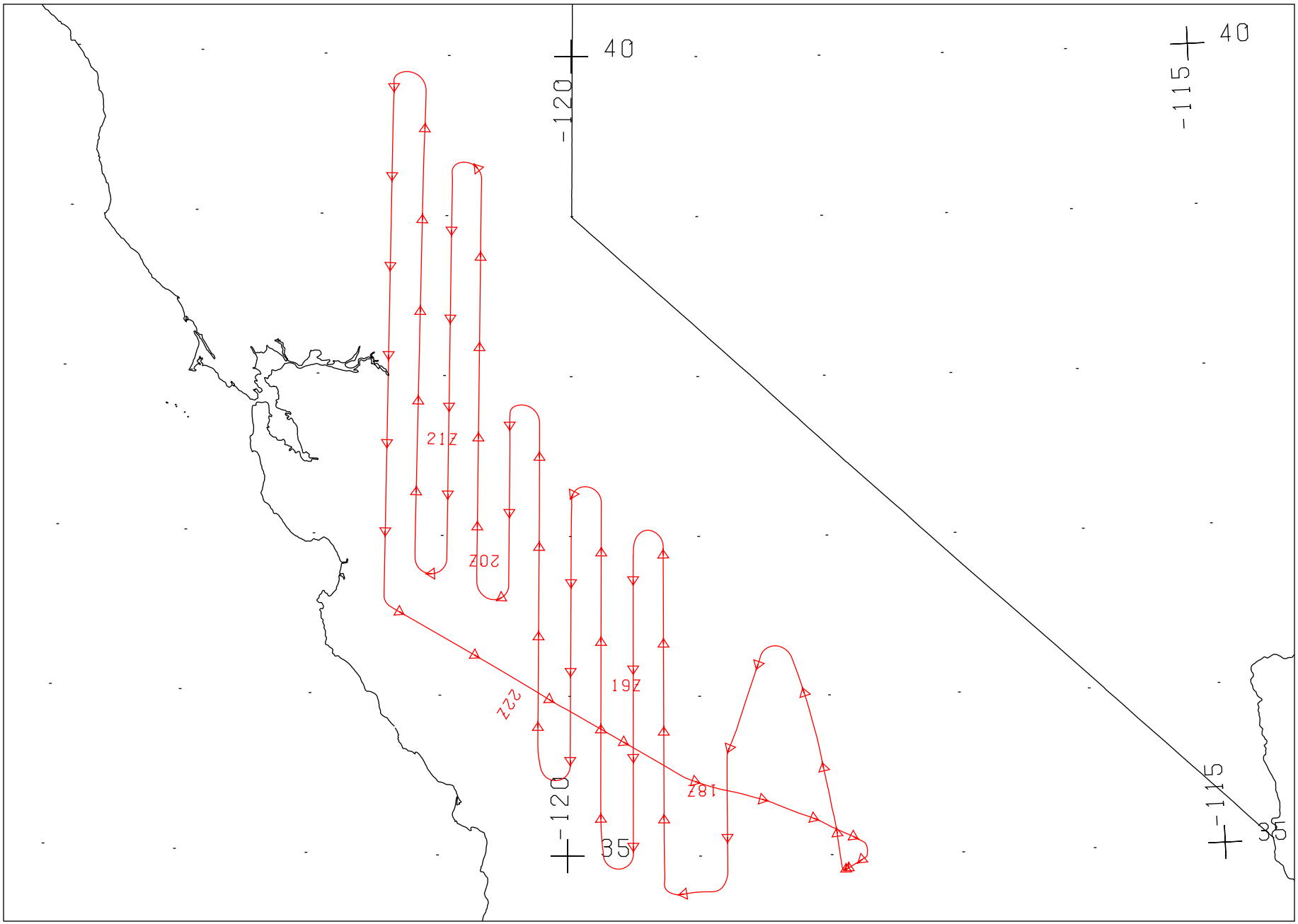
Additional information regarding flight documentation to include data archive searches, data availability, sensor parameters, and areas of coverage may be obtained from the following: Airborne Sensor Facility, MS 240-6, NASA Ames Research Center, Moffett Field, CA 94035-1000, Telephone: 650.604.6252 (FAX 4987).

CAMERA FLIGHT LINE DATA
FLIGHT NO. 99-122

Accession # 05382

Sensor # 023

Check Points	Frame Numbers	Time (GMT-hr, min, sec) START	Time (GMT-hr, min, sec) END	Altitude, MSL feet/meters	Cloud Cover/Remarks
A - B	2952-2958	18:00:03	18:04:49	65000/19812	Clear
C - D	2959-2977	18:10:18	18:26:13	65000/19812	Clear
E - F	2978-2997	18:31:23	18:48:08	65000/19812	Clear
G - H	2998-3017	18:53:13	19:09:55	65000/19812	Clear
I - J	3018-3034	19:13:18	19:27:12	65000/19812	Clear
K - L	3035-3044	19:37:11	19:44:36	65000/19812	Clear
M - N	3045-3056	19:52:24	20:01:39	65000/19812	Clear
O - P	3057-3077	20:04:40	20:22:11	65000/19812	Clear
Q - R	3078-3102	20:29:49	20:51:00	65000/19812	Clear
S - T	3103-3125	20:55:35	21:14:55	65000/19812	Clear
U - V	3126-3155	21:22:28	21:48:14	65000/19812	Minor-20% smoke (frames 3126-3135)



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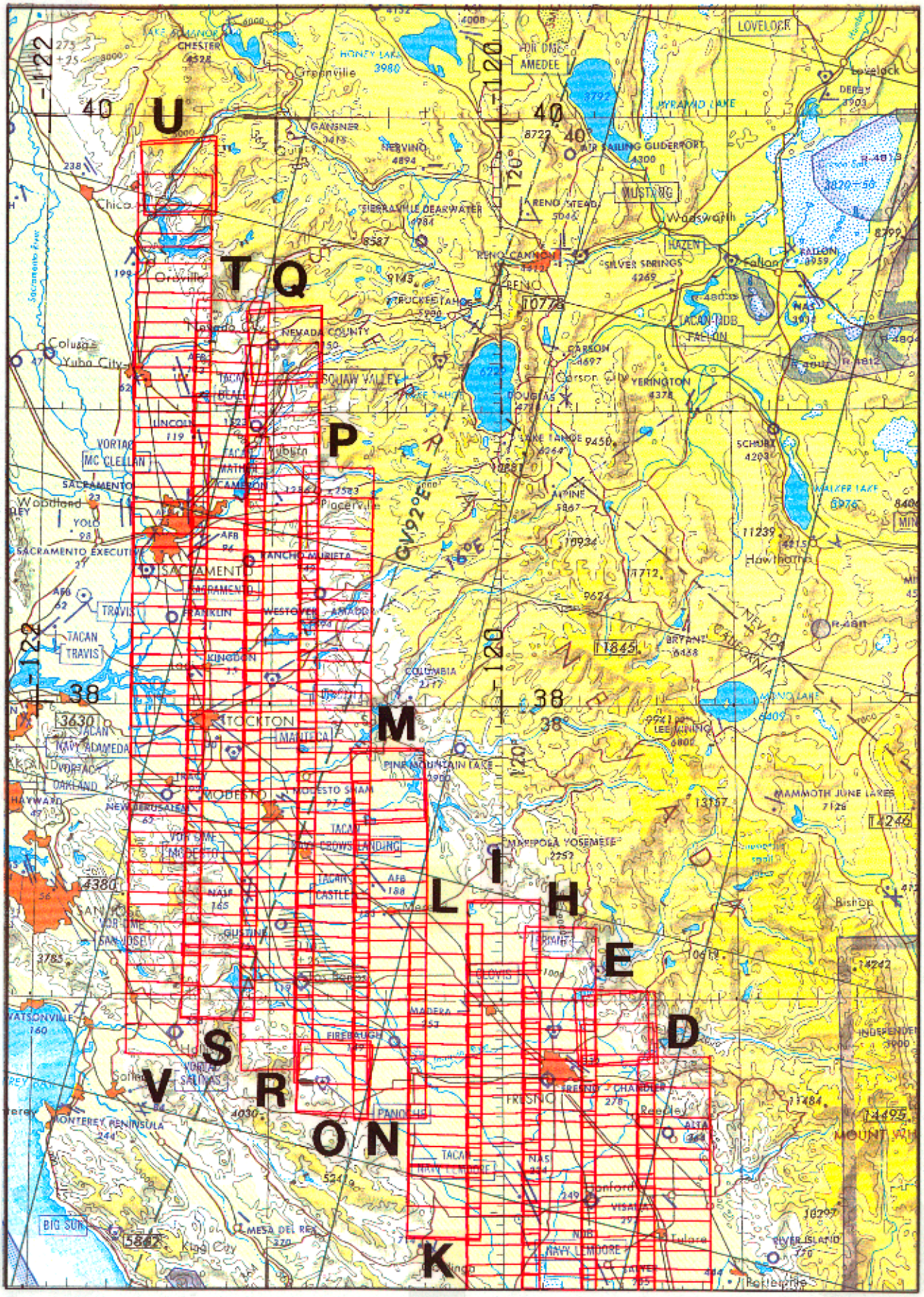

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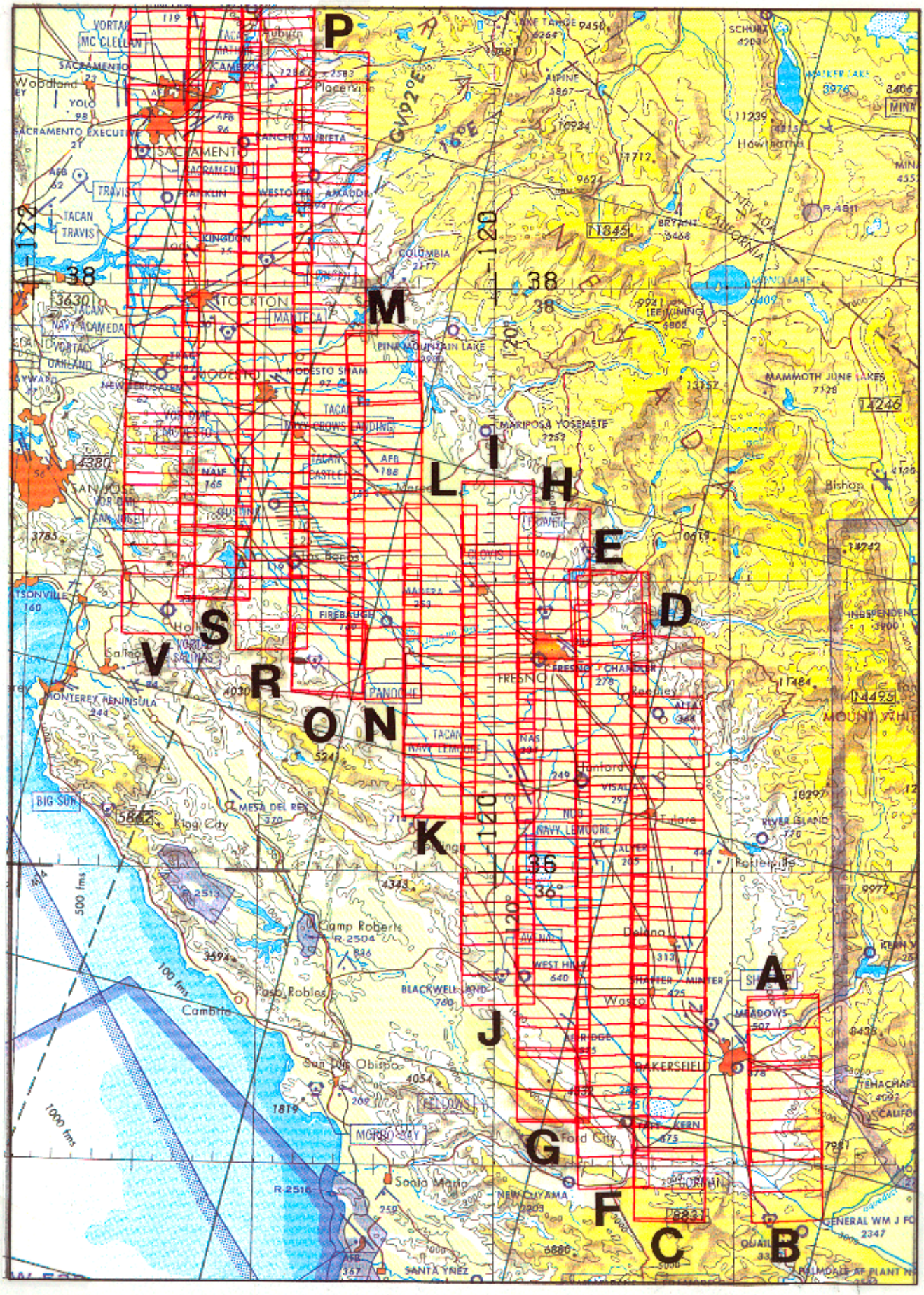

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